

### **Remarks**

Reconsideration and reexamination of the above-identified patent application, as amended, are respectfully requested. Claims 1-20 are pending in this application upon entry of this Amendment. In this Amendment, the Applicant has amended claims 1, 2, 5-10, and 19-20. No claims have been cancelled or added in this Amendment. Of the pending claims, claims 1, 11, and 18-19 are the only independent claims.

#### **Claim Rejections - 35 U.S.C. § 102**

In the Office Action mailed April 22, 2004, the Examiner rejected independent claims 1, 11, and 19 and dependent claims 2-3, 5-9, 12-17, and 20 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,910,954 issued to Bronstein et al ("Bronstein"). The Applicant believes that the claimed invention as recited in independent claims 1 and 19 is patentable over Bronstein and has amended independent claims 1 and 19 to more clearly define thereover. The Applicant respectfully traverses the rejection to independent claim 11 and believes that the claimed invention as recited in independent claim 11 is patentable over Bronstein.

#### **1. The Claimed Invention**

The Applicant has amended independent claims 1 and 19 to recite that the user device is masked from the foreign device so that neither of these devices are aware that they are communicating with a device/network other than one with which they are compatible. As claimed, this masking feature is enabled by substituting the permanent address of a user device message intended for the foreign device with a router address. The router address acts as a source address and is recognizable by the foreign device. Likewise, the Applicant has further amended independent claim 1 to recite that when the foreign device sends a message intended for the user device to the router address, the router address is replaced with the permanent address as a destination address in order for the user device to receive the message. In this

manner, neither device is aware that the address with which they are communicating is not a valid address on the network for which the device is configured. Support for these amendments can be found, for example, on page 2, line 21 through page 3, line 2 of the Applicant's specification.

a. **Independent Claim 1**

Amended independent claim 1 provides a method for providing connectivity between a foreign device on a second local area network (LAN) and a user device configured for a first LAN. The user device has a permanent address.

The method includes determining network settings of the user device by intercepting packets transmitted by the user device intended for the foreign device. The packets transmitted by the user device have the permanent address as a source address. The packets transmitted by the user device are then modified to be compatible with the second LAN based on the network settings of the user device and on network settings of the second LAN such that the second LAN appears as the first LAN to the user device. Modifying the packets transmitted by the user device includes substituting the permanent address with a router address as the source address. The router address is an address recognized by the foreign device.

The method further includes intercepting packets transmitted by the foreign device intended for the user device. The packets transmitted by the foreign device have the router address as a destination address. The packets transmitted by the foreign device are then modified to be compatible with the first LAN based on the network settings of the user device and on the network settings of the second LAN such that the first LAN appears as the second LAN to the foreign device. Modifying the packets transmitted by the foreign device includes substituting the router address with the permanent address as the destination address.

**b. Independent Claim 11**

Independent claim 11 provides a method for providing access to a network utilizing private IP addresses for a user device having an incompatible private IP address. The method includes intercepting data transmitted by the user device containing the incompatible private IP address. The data is then modified by using a private IP address compatible with the network private IP addresses. The modified data is then transmitted on the network.

**c. Independent Claim 19**

Amended independent claim 19 provides a method for providing connectivity to a foreign network for a user device. The user device has a permanent address. The method includes determining network settings of the foreign network based on addresses contained in messages transmitted over the foreign network. User device messages transmitted over the foreign network are intercepted without regard to message destination addresses. The user device messages have the permanent address as a source address. Incorrectly configured messages transmitted by the user device are then modified based on the network settings of the foreign network. The incorrectly configured messages transmitted by the user device are modified by substituting the permanent address with a router address as the source address. The router address is an address recognized by the foreign network.

**2. Bronstein**

Bronstein discloses a network switch that includes an apparatus for converting back and forth between one of the legacy LAN protocols (Ethernet, Token Ring, or FDDI) and an ATM protocol (col. 1, lines 50-52, col. 2, lines 63-64, col. 4, lines 14-19). The network switch is also capable of creating emulated (i.e., virtual) LANs from a combination of legacy LAN workstations and ATM workstations (col. 1, lines 52-54). To facilitate the emulated LANs, the network switch contains a map of the various workstations and which emulated LAN they belong to. The network switch also contains information regarding each

workstation's protocol. The stored protocol information allows the switch to determine which messages must be converted (from legacy LAN format to ATM format) in order to facilitate their transmission (col. 2, lines 1-8).

**3. The Claimed Invention Compared to Bronstein**

**a. Independent Claims 1 and 19**

The claimed invention differs from Bronstein in that Bronstein does not determine network settings so that a device configured to communicate with a first network can communicate with a second network. Col. 3, lines 21-24 of Bronstein discloses that when a user relocates, his new workstation must be redefined to belong to his old emulated network. Similarly, col. 4, lines 5-9 of Bronstein discloses that the switch's operation parameters can be changed by network management units (i.e., not automatically determined by the switch itself). As such, it is clear that the network switch disclosed by Bronstein does not determine the network setting of the user device such that the switch can facilitate communication between the user device and the network with no user intervention.

Furthermore, the Bronstein device does not act to mask the user device from the foreign device so that neither the foreign device nor the user device are aware that they are communicating with a device/network other than one with which they are compatible. The claimed invention provides this masking feature by substituting a router address for the source address of messages sent from the user device. Likewise, when a device on the second network sends a message intended for the user device to the router address, the claimed device alters the destination address to match the user device's address and forwards the message to the user device. (See page 2, line 21 through page 3, line 2 of the Applicant's specification). In this manner, neither device is aware that the address with which they are communicating is not a valid address on the network for which the device is configured.

Col. 4, lines 63-66 of Bronstein discloses that the Bronstein device receives and monitors the MAC address portions of a message so that it can determine whether the format of the message must be converted from legacy LAN to ATM. However, there is no teaching or suggestion that the Bronstein device changes the MAC address of a message. Similarly, col. 5, lines 10-27 of Bronstein discloses that the Bronstein device may attach a "virtual path/channel identification tag" to a message but the virtual tag is used to identify which data belongs to which frame of a message, not the source or destination device.

The above differences derive from the fact that the Bronstein device and the claimed invention are intended to solve different problems. Bronstein is intended to allow a network administrator with an existing legacy LAN to connect that legacy LAN or workstations on the legacy LAN to an ATM network (col. 1, lines 23-26, lines 40-43, lines 50-54). Because the Bronstein device is utilized in an overall scheme to interface two or more known networks, it is clear that the network administrator knows the parameter settings for each of the networks he is interfacing. The claimed invention is designed, inter alia, to provide a system and method for connecting a user device to a network where the user device settings, the network settings, or both are unknown (see the Applicant's abstract).

Therefore, the Applicant believes that amended independent claims 1 and 19 are patentable over Bronstein. Claims 2-3, 5-9, and 20 depend from one of amended independent claims 1 and 19 and include the limitations therein. Accordingly, the Applicant respectfully requests reconsideration and withdraw of the rejection to claims 1-3, 5-9, and 19-20 under 35 U.S.C. § 102(e).

**b. Independent Claim 11**

Regarding independent claim 11, the Applicant contends that the Examiner has mis-characterized Bronstein. Contrary to the Examiner's assertions, the sections cited by the Examiner fail to provide any discussion of network IP addresses. There is no indication that the "internal address" cited in col. 6, lines 53-56 is the equivalent of an IP address on the

network. In fact, the "internal address" cannot be an IP address as it is derived from a MAC address (col. 6, lines 53-56). In routing incoming messages, MAC addresses may be derived from IP addresses but IP addresses are not derived from MAC addresses. As such, Bronstein fails to disclose all features and limitations of independent claim 11.

Therefore, the Applicant believes that independent claim 11 is patentable over Bronstein. Claims 12-17 depend from independent claim 11 and include the limitations therein. Accordingly, the Applicant respectfully requests reconsideration and withdraw of the rejection to claims 11-17 under 35 U.S.C. § 102(e).

**Claim Rejections - 35 U.S.C. § 103**

The Examiner rejected claims 4 and 10 under 35 U.S.C. § 103(a) as being unpatentable over Bronstein in view of U.S. Patent No. 6,249,527 issued to Verthein et al ("Verthein"). Claims 4 and 10 depend from amended independent claim 1 and include the limitations therein. Thus, the Applicant respectfully requests reconsideration and withdraw of the rejection to claims 4 and 10 under 35 U.S.C. § 103(a).

The Examiner rejected independent claim 18 under 35 U.S.C. § 103(a) as being unpatentable over Bronstein in view of Verthein. The Applicant respectfully traverses the rejection to independent claim 18 and believes that the claimed invention as recited in independent claim 18 is patentable over Bronstein and Verthein.

**1. The Claimed Invention**

Independent claim 18 provides a method for providing access to a network utilizing DHCP for a user device configured with a static IP address. The method includes intercepting packets transmitted by the user device to determine the user device's static IP address, transmitting a DHCP request on the network to determine at least one available network IP address, modifying the packets transmitted by the user device based on an available

IP address, and transmitting modified packets on the network to provide network access to the user device.

**2. Bronstein and Verthein**

As stated above, Bronstein discloses a network switch that includes an apparatus for converting back and forth between one of the legacy LAN protocols (Ethernet, Token Ring, or FDDI) and an ATM protocol (col. 1, lines 50-52, col. 2, lines 63-64, col. 4, lines 14-19). The network switch is also capable of creating emulated (i.e., virtual) LANs from a combination of legacy LAN workstations and ATM workstations (col. 1, lines 52-54). To facilitate the emulated LANs, the network switch contains a map of the various workstations and which emulated LAN they belong to. The network switch also contains information regarding each workstation's protocol. The stored protocol information allows the switch to determine which messages must be converted (from legacy LAN format to ATM format) in order to facilitate their transmission (col. 2, lines 1-8).

Verthein discloses a communication access chassis having a general purpose computing platform for providing communication access between remote users and computer network via the public telephone network (abstract).

**3. The Claimed Invention Compared to Bronstein and Verthein**

According to M.P.E.P. § 2142, three criteria must be met for the Examiner to establish a *prima facie* case of obviousness. First, there must be some suggestion or motivation, either in Bronstein, Verthein, or in knowledge generally available to one of ordinary skill in the art, to modify Bronstein. Second, there must be a reasonable expectation that this modification will succeed. Finally, either Bronstein or Verthein must teach or suggest all claim limitations.

Neither Bronstein nor Verthein, alone or in combination, teach or suggest all claim limitations. Whereas Verthein discloses the use of DHCP to automatically assign IP addresses to remote work stations on a network (col. 9, ll. 37-42), independent claim 18 provides a mechanism that masks the user device from the incompatible network. The claimed invention provides this masking feature by substituting the derived IP address for the static address of all messages sent from the user device. Likewise, when a device on the network sends a message intended for the user device to the derived IP address, the claimed device alters the destination address to match the user static IP address and forwards the message to the user device. (See page 2, line 21 through page 3, line 2 of the Applicant's specification). In this manner, neither device is aware that the address with which they are communicating is not a valid address on the network for which the device is configured.

Furthermore, because Bronstein discloses a device intended to interface networks with different, but known, protocols and configurations; there is no suggestion or motivation to combine Bronstein with the DHCP functionality disclosed by Verthein.

As such, the Examiner has failed to establish a *prima facie* case for obviousness and the rejection to independent claim 18 under 35 U.S.C. § 103(a) should be withdrawn.

### CONCLUSION

In summary, claims 1-20, as amended, meet the substantive requirements for patentability. The case is in appropriate condition for allowance. Accordingly, such action is respectfully requested.

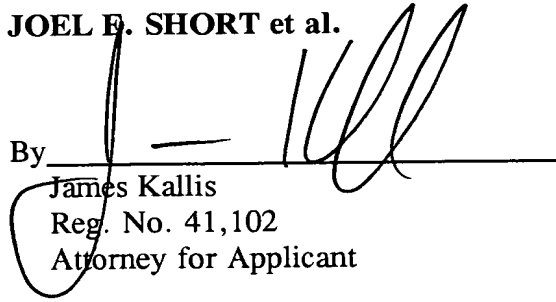


If a telephone or video conference would expedite allowance or resolve any further questions, such a conference is invited at the convenience of the Examiner.

Respectfully submitted,

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